

# EarthCube Working Group Proposals

## Draft EarthCube Leadership Council Document

### Background on EarthCube Working and Special Interest Groups

Modified from form last updated 4 February 2015

The *EarthCube Demonstration Governance Charter* (revised 05/21/2014) defines a Working Group (§3.6) and

Working Groups serve as ad hoc organizational units created in response to a pressing issue, opportunity, activity, or deliverable related to moving forward EarthCube goals. Working Groups can emerge from the broad EarthCube community, from under the auspices of a Standing Committee, or by direction of the Leadership Council. They can be initiated by any community member, provided they secure a minimum commitment from at least three participants representing at least three separate institutions. Working Groups may bridge more than one Standing Committee, as they can serve as important mechanisms to foster collaboration and resolve issues between Committees.

#### 3.6 Working Groups

Any EarthCube member can create a Special Interest Group focused on any topic relevant to EarthCube. There is no formal review or approval process. Special Interest Groups may request that a page be created on the EarthCube website to explore their topic resources are automatically available to Special Interest Groups necessarily be EarthCube products.

#### 3.8 Special Interest Groups

Proposals for EarthCube Working and Special Interest Groups should be submitted on the attached form to [rachael.black@azgs.az.gov](mailto:rachael.black@azgs.az.gov).

- All Working Group (WG) and Special Interest Group (SIG) proposals should include the essential background information required to define their purpose and need, which will be publicly available and comprises the following:
  - A WG/SIG **title** (that defines context and contains searchable key words)
  - A **statement of purpose**, outlining the end goal/deliverable (less than 250 words)
  - The name, affiliation and email address of the WG/SIG **leader** and a list of at least three additional **participants** (name, affiliation, email)
  - The **operational timeline** (From MMDDYY To MMDDYY)
  - An indication of whether or not **funds** will be required to support WG/SIG activities (if funds are required)
  - Section 2 of the form must also be completed)

For more information on EarthCube Working Groups see the 'Existing Guidelines appendix' to the *EarthCube Demonstration Governance Charter*.

# EarthCube Working of Special Interest Group Proposal Form

## EarthCube Working Group Proposal: EarthCube Architecture

### Section 1: Background Information

1. **Working or Special Interest Group title:**

EarthCube Architecture Working Group (EA WG).

2. **Statement of Purpose**

At the Oct 6, 2014 EarthCube Technology & Architecture Committee (TAC) meeting, “Begin facilitating community convergence on an EarthCube Architecture” was identified as a priority. There are three funded EarthCube Conceptual Design (CD) projects that are developing potentially divergent perspectives on EC design and architecture. An alignment of these approaches is needed to inform development and evolution of an encompassing EarthCube architecture.

This workgroup will explore similarities and differences in approaches of the three CD projects to answering key questions related to conceptual design that are facing EarthCube at this point. The group will explore topics that were prompted by the TAC members in recent discussions. These include: 1) fostering a shared terminology about architecture terms, 2) shared information about use cases and requirements for the architecture that the current CDs have collected, 3) other architectures being considered by the CDs.

The group will prepare a presentation for the All-hands meeting in May outlining points of consensus and disagreement in answering the following questions. The WG will focus on the points of agreement or divergence in answering these questions. Additional questions might be added if time permits.

Practical questions that have been articulated at recent EC meetings:

- What are the mechanisms for making resources developed by geoscientists a part of EarthCube?
- What are the criteria for evaluating EarthCube resources from the perspective of their contribution to geoscience and to the emerging EC infrastructure?
- How can EC-funded building blocks, as well as other geoscience information system components developed outside EC, become part of the EC system?

High level questions

- What architecture elements should be included and defined for EarthCube?
- What workflows can be used to develop a practical architecture specification?
- How will an EarthCube architecture interface effectively with other existing US and Global architectures?

Answers to these questions are critical to show early success of an operational EarthCube.

## EarthCube Working of Special Interest Group Proposal Form

The group will present concrete options for the community to consider based on the information gathered by the CD project teams, integrating input to the projects from EC funded projects, EarthCube Council of Data Facilities, others in the EarthCube community, and surveys of related informatics cyberinfrastructures. A community conversation and convergence on approaches to these issues is essential to agreement on a roadmap for the transition from the conceptual design phase to the development of EarthCube architecture for use as a reference to guide implementation, management, and operation of EarthCube. Our thesis is that this conversation will be much more productive if it is based on concrete, implementable options. The WG will draft a white paper recommending a plan to the TAC for the evolution from current CD projects to an architecture that supports the EarthCube operation.

This working group will use a wiki to collect responses to the questions from each project, a series of teleconferences and a face to face meeting to enumerate, compare, and contrast ideas and approaches and formulate a presentation for the All-hands meeting and draft the WG white paper recommendations.

Tentative timeline & deliverables include:

- Draft whitepaper (mid-late April 2015)
- Collect community feedback (early-mid May 2015)
- All-Hands presentation (late May 2015)
- Face to face meeting (late June or early July 2015)
- Finalize whitepaper (June-July 2015): The white paper will include the answers to the questions listed and others identified in the WG process.
- TAC review (July 2015, as the TAC will serve as an initial review body for the recommendations and reports of this working group)
- Final recommendations and presentation to TAC (August 2015): The recommendation will lay out the roadmap for developing detailed architecture for supporting EarthCube operations.

### **3. Name, affiliation and email address of WG/SIG leader and at least three additional participants:**

(co-chair) Basil Gomez, Univ. of Hawaii, [basil@kbayes.com](mailto:basil@kbayes.com)

(co-chair) Mohan Ramamurthy, UCAR, [mohan@ucar.edu](mailto:mohan@ucar.edu)

(co-chair) Ilya Zaslavsky, SDSC, [zaslavsk@sdsc.edu](mailto:zaslavsk@sdsc.edu)

(co-chair) Phil Yang, GMU, [cyang3@gmu.edu](mailto:cyang3@gmu.edu)

Emily Law, NASA JPL, [emily.s.law@jpl.nasa.gov](mailto:emily.s.law@jpl.nasa.gov)

Stefano Nativi, National Research Council of Italy, [stefano.nativi@cnr.it](mailto:stefano.nativi@cnr.it)

Steve Richard, AZGS, [steve.richard@azgs.az.gov](mailto:steve.richard@azgs.az.gov)

Jay Pearlman, UC-Boulder, [jay.pearlman@jandfent.com](mailto:jay.pearlman@jandfent.com)

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## 4. Operational timeline:

From 03/21/2015 to: 09/30/2015

## 5. Are funds required to support WG/SIG activities?

YES (if YES please complete Section 2 below)

### Section 2: Budget Justification

## 6. Alignment with EarthCube goals and/or Committee/Team priorities:

This working group will elucidate concrete options key EarthCube design questions articulated by the EC community, enabling the transition from conceptual designs to EarthCube architecture evolution.

Members of the workgroup will interact with several established EC working groups and committees (Science, Use Cases, Gap Analysis, Council of Data Facilities, Test bed, GEOSS, etc) to ensure that the concurrent progress is accounted for in the proposed options.

## 7. Meeting mechanisms and expected frequency:

- Bi-weekly discussions via telecon leading up to a physical meeting
  - A face to face working meeting held for 1-2 days after All-Hands meeting
- Membership and teleconferences will be open to all interested parties. Responses to the questions by the CD projects will be public, and registered users will be able to provide comments and discussion on a wiki. The face-to-face meeting will only include key participants and the content of the final presentation to the TAC will be worked out during that meeting.

## 8. Expected time commitments and level of involvement:

- 2-4 hours per week
- 1-2 days attending face to face meeting

## 9. Risk assessment (what might lead to failure, how to mitigate those risks):

Work to be done is on a volunteer basis. Time and commitment is uncertain. Participations from more than one member of each conceptual design project will help.

## 10. Resources available to the working group (e.g., datasets, people, IT, etc.):

- Webex, workspace
- One face to face meeting

## 11. Requested total estimated budget and brief (<250 word) budget justification:

The requested budget will provide support for working group meeting. The amount is \$9000 to cover travel for up to 8 key working group members.

## 12. Host (who will be committed to respond to inquiries about the group):

Phil Yang, GMU, [cyang3@gmu.edu](mailto:cyang3@gmu.edu)